UNITED STATES PATENT AND TRADEMARK OFFICE

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FITZPATRICK CELLA HARPER & SCINTO
30 ROCKEFELLER PLAZA
NEW YORK, NY 10112

EXAMINER
ROBERTS, JESSICA M

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *28 May 2008*.
2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-23* is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) *12-23* is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☒ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on *22 April 2004* is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a) ☒ All   b) ☐ Some *   c) ☐ None of:
        1. ☐ Certified copies of the priority documents have been received.
        2. ☐ Certified copies of the priority documents have been received in Application No. _____.
        3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1.   Applicant's election with traverse of the fourth embodiment in the reply

filed on 05/28/2008 is acknowledged. The traversal is on the ground(s) that

arrangements that are common to different embodiments require an election.

This is not found persuasive because there are two inventions present with in the

application (JAPAN 2003-129454 and JAPAN 2003-129455). Further, there are

multiple distinct species within the application. Claims 1-12 will be treated as

non-elected.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 101

2.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or
> composition of matter, or any new and useful improvement thereof, may obtain a patent
> therefor, subject to the conditions and requirements of this title.

Claims 22-23 are rejected under 35 U.S.C. 101 because the claimed

invention is directed to non-statutory subject matter.

As to claim 22, which recites a..." computer readable recording medium

recording a control program..." which qualifies as functional descriptive subject

matter. However, a computer readable recording medium recording a control

program alone is directed to a computer program. However, by itself it is non-

statutory because without a computer readable medium encoded with a control

program, the control program functionality cannot be realized (Inter Guidelines

for Examination of Patent Application for Patent Subject Matter). Further, the

language does not comply with MPEP 2106.01(I).

As to claim 23, fails to remedy the issue as stated in claim 22. Thus, it is

too rejected as non-statutory subject matter (Interim Guidelines, Annex IV).

Further, claim 23 which recite a control program for making a computer execute..

" However, the claim does not define a computer readable medium or memory

and is thus non-statutory for that reason (i.e., "When function descriptive material

is recoded on a some computer readable medium it become structurally and

functionally interrelated to the medium and will be statutory in most cases since

use of technology permits the function of the descriptive material to be realized-

Guidelines Annex IV). That is, the scope of the presently claimed, "control

program for making a computer execute" can range from paper on which the

program is written, to be a program simply contemplated and memorized by a

person.

Drawings

3.   Figure 17 should be designated by a legend such as --Prior Art-- because

only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings

in compliance with 37 CFR 1.121(d) are required in reply to the Office action to

avoid abandonment of the application. The replacement sheet(s) should be

labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as

not to obstruct any portion of the drawing figures. If the changes are not accepted

by the examiner, the applicant will be notified and informed of any required

corrective action in the next Office action. The objection to the drawings will not

be held in abeyance.

Specification

4.   The abstract of the disclosure is objected to because of undue length.

Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for

all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6.   The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1,

148 USPQ 459 (1966), that are applied for establishing a background for

determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1.   Determining the scope and contents of the prior art.
2.   Ascertaining the differences between the prior art and the claims at issue.
3.   Resolving the level of ordinary skill in the pertinent art.
4.   Considering objective evidence present in the application indicating obviousness or nonobviousness.

7.   Claims 12-17, and 19-23 are rejected under 35 U.S.C. 103(a) as being

unpatentable over of Matsushita et al., JP 8163488 and in view of Applicants

Admitted Prior Art (AAPA).

Regarding claim 12, AAPA teaches A moving image processing method

for processing moving image data for which a plurality of pieces of division

information required to divide a moving image on the basis of each of a plurality

of items of data which indicate states upon sensing the moving image, so as to

be able to be read out for each item, comprising: a generation step of defining an

item group formed of one or a plurality of items selected from the plurality of

items (Matsushita teaches this invention aims at offering the equipment which

generates the digest which is easy to grasp the contents of a dynamic image in

view of this point [0004]. Therefore, it is clear to the examiner that Matsushita

teaches to generate a digest of images, which reads upon the claimed limitation)

and generating integrated division information corresponding to the item group by

integrating one or a plurality of pieces of division information corresponding to the

items which belong to the item group (Matsushita teaches to perform the dividing

the continues frame into a shot based on camera work. The camera works are

zoom operation and pan operation [0020]); a hierarchization step of adding

division positions based on integrated division information of an upper layer to

division positions of integrated division information of a lower layer in accordance

with a hierarchical order of a plurality of pieces of integrated division information,

which are generated in the generation step in correspondence with a plurality of

different item groups (Matsushita teaches where camera information can be

acquired and a hierarchical structure can be generated. A hierarchical structure

is generated and the memory address on the video storage 1 with which the

information showing a hierarchical structure, i.e., a scene, a cut, and each head

frame and termination frame of the shot are memorized is memorized to the

hierarchical structure ([0023]); and a holding step of holding the integrated

division information obtained in the hierarchization step in correspondence with

the moving image data (Matsushita teaches with which the information showing a

hierarchical structure, i.e., a scene, a cut, and each head frame and termination

frame of the shot are memorized is memorized to the hierarchical structure

[0023]. Further taught is that as mentioned above, by generating the hierarchical

structure of video and memorizing to the storage with video, when photoing video

with the equipment equipped with a photographing functions, such as video

camera, in this example arbitrary [based on hierarchical structure] after

photography –it becomes possible to generate the digits [0025]. Since

Matsushita teaches to generate the hierarchical structure of video to the storage

with video, it is clear to the examiner that Matsushita discloses to hold the

division information obtained from the hierarchical structure, which reads upon

the claimed limitation). Matsushita does not explicitly teach hierarchization step

of adding division positions based on integrated division information of an upper

layer to division positions of integrated division information of a lower layer in

accordance with a hierarchical order of a plurality of pieces of integrated division

information, which are generated in the generation step in correspondence with a

plurality of different item groups.

However, AAPA teaches hierarchization step of adding division positions

based on integrated division information of an upper layer to division positions of

integrated division information of a lower layer in accordance with a hierarchical

order of a plurality of pieces of integrated division information, which are

generated in the generation step in correspondence with a plurality of different

item groups (AAPA teaches FIG. 17 is a view for explaining the conventional

moving image dividing technique. (a) of FIG. 17 shows the changing points

(Gain, White Balance, subject distance, Zoom, Pan) of the operation intervals

and the states of the image sensing device with respect to a single moving image

for respective items. (b) of FIG. 17 shows the image dividing result using these

Gain, White Balance, subject distance, Zoom, and Pan items. As shown in (b) of

FIG. 17, since division positions based on a plurality of different items are

present together, the moving image is segmented into many intervals [0004].

Since AAPA discloses to divide the image changing points into layers (gain,

white balance, zoom and pan), and create a division result, it is clear to the

examiner that AAPA teaches to add the changing point layers to create the

division result which reads upon the claimed limitation).

Therefore, it would have been obvious to one of ordinary skill in the art at

the time of the invention to incorporate the teaching of AAPA with Matsushita for

providing more efficient image processing.

Regarding claim 13, Matsushita (modified by AAPA) as a whole teaches

everything as claimed above, see **claim 12.** Matsushita is silent in regards to

The method according to claim 12, further comprising a setting step of setting the

hierarchical order of the plurality of pieces of integrated division information on

the basis of division counts of the integrated division information.

However, AAPA discloses For example, FIG. 17 is a view for explaining

the conventional moving image dividing technique. (a) of FIG. 17 shows the

changing points (Gain, White Balance, subject distance, Zoom, Pan) of the

operation intervals and the states of the image sensing device with respect to a

single moving image for respective items. (b) of FIG. 17 shows the image

dividing result using these Gain, White Balance, subject distance, Zoom, and

Pan items. As shown in (b) of FIG. 17, since division positions based on a

plurality of different items are present together, the moving image is segmented

into many intervals [0004]. Therefore, it is clear the examiner that the reference

more than fairly suggest or teaches to set a hierarchy based on the division

counts. Since AAPA discloses the division positions are based on a plurality of

different items that are present together, it would have been obvious modification

for one of ordinary skill in the art at the time of the invention to count the division

information for providing enhanced image processing, which reads upon the

claimed limitation.

Therefore, it would have been obvious for one of ordinary skill in the art at

the time of the invention to incorporate the teachings of AAPA with Matsushita for

providing more efficient image processing.

Regarding claim 14, see rejection and analysis made in claim 13.

Regarding claim 15, Matsushita (modified by AAPA) teaches everything

as claimed above, see **claim 12.**   In addition, Matsushita teaches the method

according to claim 12, wherein the hierarchical order of the plurality of pieces of

integrated division information is set according to a hierarchical order which is set

in advance for respective item groups (Matsushita teaches the block diagram of

this example is shown in drawing 1. This example reads into the hierarchy

selection means 5 the hierarchical structure information memorized by the

hierarchic-structure storage 2, and based on the surface roughness input from

the digest surface roughness input means 7, the hierarchy selection means 5

chooses the information on a specific hierarchy from the read hierarchical

structure information, and outputs it to the extraction section determination

means 6, [0010]. Therefore, it is clear to the examiner that Matsushita discloses

to select a specific hierarchy, which would necessitate setting the hierarchy in

advance, which reads upon the claimed limitation).

Regarding claim 16, Matsushita (modified by AAPA) as a whole teaches

everything as claimed above, see **claim 12.** In addition Matsushita teaches the

method according to claim 12, further comprising a designation step of

designating the hierarchical order of the plurality of pieces of integrated division

information (Matsushita teaches the hierarchic structure is generated and the

memory address on the dynamic-image storage 1 with the information showing

the hierarchic structure, i.e., scene and a hierarchy selection means to choose

the hierarchy of the section dynamic image extracted according to the inputted

surface roughness from said hierarchic-structure storage, [0006] and [0010]).

Regarding claim 17, Matsushita (modified by AAPA) as a whole teaches

everything as claimed above, see **claim 12.** In addition Matsushita teaches The

method according to claim 12, further comprising: a holding step of generating

and holding representative images which represent respective intervals of a

moving image that are specified by integrated division information of respective

layers obtained in the hierarchization step (Matsushita teaches the hierarchic

structure is generated and the memory address on the dynamic-image storage 1

with which the information showing the hierarchic structure, i.e., a scene, a cut,

and each head frame and termination frame of the shot are memorized is

memorized to the hierarchic-structure storage 2. Moreover, to memorize the

memory address on the dynamic-image storage 1 of the frame which represents

a scene, a cut, and a shot further as hierarchical structure information [0023]) ;

and a display step of displaying, when one interval of one layer is designated,

representative images of intervals included in the designated interval in a layer

lower than that layer (Matsushita discloses where a dynamic image can be

expressed by the hierarchic structure called a frame, a shot, a cut, and a scene

in the way. A least significant layer is a frame and a frame is the picture of one

sheet photoed at the video rate [0011]. Further, the case where the information

on a cut hierarchy was chosen from the hierarchy selection means 5, and it is

inputted about operation of the extraction section determination means 6 is made

into an example, and it explains. With the extraction section determination means

6, the section which extracts the dynamic image of several frames which

continued from each cut based on the information on a cut hierarchy is

determined. The method of some determination methods of the extraction

section being considered and extracting a predetermined frame number from the

head of a cut -- or there is a method of extracting the middle predetermined

frame number of a cut. Moreover, when it has the frame information which

represents a cut as information on the hierarchic structure, you may determine

the extraction section that a representative frame is included based on a

representative frame.

The read-out means 3 and the display means 4 read the picture of the extraction

section determined with the extraction section determination means 6 from the

dynamic-image storage 1, and display it [0014]. Therefore, it is clear to the

examiner that Matsushita discloses to display an image based on the selected

hierarchy. Further, since Matsushita discloses the information is in a hierarchy,

then Matsushita is more than fully capable of displaying images that have a lower

hierarchical order than what is selected, which reads upon the claimed limitation).

Regarding claim19, Matsushita (modified by AAPA) as a whole teaches

everything as claimed above, see **claim 12.** In addition, Matsushita teaches The

method according to claim 12, further comprising a storage step of storing the

integrated division information obtained in the hierarchization step in a storage

medium in correspondence with the moving image data (Matsushita teaches a

generation of the video digest of a natural display is enabled by storing the

generated digest picture in a video storing medium [0042]).

Regarding claim 20, Matsushita (modified by AAPA) as a whole teaches

everything as claimed above, see **claim 12.** Matsushita is silent in regards to the

method according to claim 12, wherein the item group includes one of an

environment upon sensing an image, a sensed subject, a subject size upon

sensing an image, and an effect applied to a moving image (AAPA teaches a

conventional moving image dividing technique. (a) of Fig. 17 shows the changing

points (Gain, White Balance, and subject distance, zoom, pan) of the operation

intervals and the states of the image sensing device with respect to a single

moving image for respective items [`0004] and fig. 17).

Therefore, it would have been obvious to one of ordinary skill in the art at

the time of the invention to incorporate the teachings of AAPA with Matsushita for providing more efficient image signal processing.

Regarding claim 21, see rejection and analysis made in claim 12, except this is a claim to an apparatus with the same limitations as claim 12.

Regarding claims 22 although Matsushita (modified by AAPA) is silent in regards to the use of a computer readable recording medium recording a control program which makes a computer execute or processor based method, it would obvious to one of ordinary skill that when performing digital signal processing the use of a digital signal processor is used. Further a digital signal processor and computer readable recording medium recording a control program which makes a computer execute, are functional equivalents of one another and are used interchangeably. Therefore, it would have been obvious to incorporate a computer readable recording medium recording a control program which makes a computer execute for use when performing digital signal processing.

Regarding claim 23, see the rejection and analysis made for claim 22.

8.   Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matsushita et al., JP 8163488 (herein referenced as Matsushita) and in view of Applicants Admitted Prior Art (AAPA) and further in view of Matsushita et al., JP 05-147337 (herein referenced as Matsushita'337).

Regarding claim 18, Matsushita (modified by AAPA) as a whole teaches everything as claimed above, **see claim 17.** Matsushita is silent in regards to The method according to claim 17, further comprising an execution step of executing a predetermined process for an interval of a moving image, which

corresponds to a representative image selected from the representative images displayed in the display step.

However, an execution step of executing a predetermined process for an interval of a moving image, which corresponds to a representative image selected from the representative images displayed in the display step (By equipping a video recording medium with the above representative picture image extraction image information, it becomes possible to extract the representative picture image in video so that subsequent samples may explain [0011]. Further taught is The information for extracting a representative picture image beforehand is recorded on the video recording medium with the video signal, and the above example explained the case where read the extraction information on a representative picture image from a video recording medium, and a representative picture image was extracted. However, even when a part or all of the information for extracting a representative picture image does not exist in a video recording medium, by processing the video signal recorded on the video recording medium, the information for extracting a representative picture image can be acquired, and a representative picture image can be extracted based on the acquired information [0014].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Matsushita'337 with Matsushita (modified by AAPA) for providing a device and video recording medium which extract automatically the representative picture image which fully expresses the contents in video in view of this point [0004].

Examiner's Note

1.   The referenced citations made in the rejection(s) above are intended to exemplify areas in the prior art document(s) in which the examiner believed are the most relevant to the claimed subject matter. However, it is incumbent upon the applicant to analyze the prior art document(s) in its/their entirety since other areas of the document(s) may be relied upon at a later time to substantiate examiner's rationale of record. A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. W.L. Gore & associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984). However, "the prior art's mere disclosure of more than one alternative does not constitute a teaching away from any of these alternatives because such disclosure does not criticize, discredit, or otherwise discourage the solution claimed…." In re Fulton, 391 F.3d 1195, 1201, 73 USPQ2d 1141, 1146 (Fed. Cir. 2004).

Conclusion

2.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

3.   Hua et al., US-2004/0085341 System and method for automatically editing a video.

4.   Llach-Pinsach et al., US-6,842,197 Automatic extraction method of the structure of a video sequence.

5.   Lennon et al., US-2002/0152267 Method for facilitating access to

multimedia content.

Any inquiry concerning this communication or earlier communications from

the examiner should be directed to JESSICA ROBERTS whose telephone

number is (571)270-1821. The examiner can normally be reached on 7:30-5:00

EST Monday-Friday, Alt Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the

examiner's supervisor, Marsha D. Banks-Harold can be reached on (571) 272-

7905. The fax phone number for the organization where this application or

proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from

the Patent Application Information Retrieval (PAIR) system. Status information

for published applications may be obtained from either Private PAIR or Public

PAIR. Status information for unpublished applications is available through

Private PAIR only. For more information about the PAIR system, see http://pair-

direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-

free). If you would like assistance from a USPTO Customer Service

Representative or access to the automated information system, call 800-786-

9199 (IN USA OR CANADA) or 571-272-1000.

/Marsha D. Banks-Harold/
Supervisory Patent Examiner, Art Unit 2621
/Jessica Roberts/

Examiner, Art Unit 2621